



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0596; Project Identifier MCAI-2022-00150-T; Amendment 39-22073; AD 2022-12-02]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc., Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all Bombardier, Inc., Model BD-100-1A10 airplanes. This AD was prompted by a report of multiple in-service events where, following a STAB TRIM FAULT advisory message and auto-pilot disconnect, flightcrew commands for a nose-up trim resulted in nose-down trim movement of the horizontal stabilizer instead. This AD requires revising the existing airplane flight manual (AFM) to provide the flightcrew with instructions for an expanded pre-flight check of the pitch trim, trim malfunction procedures, and revised “AP STAB TRIM FAIL” caution and “STAB TRIM FAULT” advisory procedures. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD becomes effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The FAA must receive comments on this AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this final rule, contact Bombardier Business Aircraft Customer Response Center, 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-2999; email ac.yul@aero.bombardier.com; Internet <https://www.bombardier.com>. You may view this referenced service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0596.

Examining the AD Docket

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0596; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, any comments received, and other information. The street address for the Docket Operations office is listed above.

Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Elizabeth Dowling, Aerospace Engineer, Mechanical Systems and Administrative Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email 9-avs-nyaco-cos@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this AD. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2022-0596; Project Identifier MCAI-2022-00150-T” at the beginning of your comments. The most helpful comments reference a specific portion of the final rule, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this final rule because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this final rule.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this AD contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this AD, it is important that you clearly designate the submitted comments as CBI. Please mark each page of

your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this AD. Submissions containing CBI should be sent to Elizabeth Dowling, Aerospace Engineer, Mechanical Systems and Administrative Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email 9-avs-nyaco-cos@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Discussion

Transport Canada Civil Aviation (TCCA) which is the aviation authority for Canada, has issued TCCA AD CF-2022-03, dated February 1, 2022 (TCCA AD CF-2022-03) (referred to after this as the Mandatory Continuing Airworthiness Information, or the MCAI), to correct an unsafe condition for all Bombardier, Inc., Model BD-100-1A10 airplanes. You may examine the MCAI on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0596.

This AD was prompted by a report of multiple in-service events where, following a STAB TRIM FAULT advisory message and auto-pilot disconnect, flightcrew commands for a nose-up trim resulted in nose-down trim movement of the horizontal stabilizer instead. In some events, the horizontal stabilizer reached the full airplane nose-down trim position before the crew recognized the nature of the problem. The FAA is issuing this AD to address uncommanded horizontal stabilizer motion, which could result in increased crew workload and reduced safety margins; and if the flightcrew is unable to regain control of the horizontal stabilizer, would result in loss of control of the airplane and excessive high control forces. See the MCAI for additional background information.

Related Service Information under 1 CFR Part 51

Bombardier has issued the following service information which includes the “Before Starting Engines” checklist in Chapter 04 – Normal Procedures, of the AFM:

- Bombardier Challenger 300 AFM (Imperial Version), CSP 100-1, Revision 67, dated March 29, 2022;
- Bombardier Challenger 300 AFM (Metric Version), CSP 100-1 (METRIC), Revision 67, dated March 29, 2022;
- Bombardier Challenger 350 AFM, CH 350, Revision 33, dated March 29, 2022.

This service information describes instructions for an expanded pre-flight check of the pitch trim. These documents are distinct since they apply to different airplane configurations.

Bombardier has also issued the following service information:

- Challenger 300 Temporary Revision TR-92, dated December 20, 2021, to the Bombardier Challenger 300 AFM (Imperial Version), CSP 100-1;
- Challenger 300 Temporary Revision TR-92, dated December 20, 2021, to the Bombardier Challenger 300 AFM (Metric Version), CSP 100-1 (METRIC);
and
- Challenger 350 Temporary Revision TR-23, dated December 20, 2021, to the Bombardier Challenger 350 AFM, CH 350.

This service information describes instructions for trim malfunction procedures, and revised “AP STAB TRIM FAIL” caution and “STAB TRIM FAULT” advisory procedures. These documents are distinct since they apply to different airplane configurations.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA's Determination

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the State of Design Authority, the FAA has been notified of the unsafe condition described in the MCAI and service information referenced above. The FAA is issuing this AD because the FAA evaluated all pertinent information and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design.

Requirements of this AD

This AD requires revising the existing airplane flight manual to add an expanded pre-flight check of the pitch trim, trim malfunction procedures, and revised "AP STAB TRIM FAIL" caution and "STAB TRIM FAULT" advisory procedures.

TCCA AD CF-2022-03 requires operators to "brief all flight crews" of the AFM procedures and thereafter to "operate the aeroplane accordingly." However, this AD does not specifically require those actions as those actions are already required by FAA regulations. FAA regulations require operators furnish to pilots any changes to the AFM (for example, 14 CFR 121.137), and to ensure the pilots are familiar with the AFM (for example, 14 CFR 91.505). As with any other flightcrew training requirement, training on the updated AFM content is tracked by the operators and recorded in each pilot's training record, which is available for the FAA to review. FAA regulations also require pilots to follow the procedures in the existing AFM including all updates. 14 CFR 91.9 requires that any person operating a civil aircraft must comply with the operating limitations

specified in the AFM. Therefore, including a requirement in this AD to operate the airplane according to the revised AFM would be redundant and unnecessary.

FAA's Justification and Determination of the Effective Date

Section 553(b)(3)(B) of the Administrative Procedure Act (APA) (5 U.S.C. 551 *et seq.*) authorizes agencies to dispense with notice and comment procedures for rules when the agency, for “good cause,” finds that those procedures are “impracticable, unnecessary, or contrary to the public interest.” Under this section, an agency, upon finding good cause, may issue a final rule without providing notice and seeking comment prior to issuance. Further, section 553(d) of the APA authorizes agencies to make rules effective in less than thirty days, upon a finding of good cause.

An unsafe condition exists that requires the immediate adoption of this AD without providing an opportunity for public comments prior to adoption. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because in some of the reported events, the horizontal stabilizer reached full airplane nose-down trim position before the flightcrew recognized the nature of the problem, resulting in increased flightcrew workload and reduced safety margins. If not addressed, an uncommanded horizontal stabilizer motion could result in the stabilizer reaching its full travel position, and consequently, the flightcrew may not be able to regain control of the horizontal stabilizer, which would result in loss of control of the airplane and excessive high control forces. Therefore, the FAA finds good cause that notice and opportunity for prior public comment are impracticable. In addition, for the reasons stated above, the FAA finds that good cause exists pursuant to 5 U.S.C. 553(d) for making this amendment effective in less than 30 days.

Interim Action

The FAA considers this AD to be an interim action. TCCA AD CF-2022-03 states an investigation is ongoing and the revision of the existing AFM is a mitigating action.

Regulatory Flexibility Act (RFA)

The requirements of the RFA do not apply when an agency finds good cause pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and comment. Because the FAA has determined that it has good cause to adopt this rule without notice and comment, RFA analysis is not required.

Costs of Compliance

The FAA estimates that this AD affects 678 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated costs for required actions

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
1 work-hour X \$85 per hour = \$85	\$0	\$85	\$57,630

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority

because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866, and
- (2) Will not affect intrastate aviation in Alaska.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2022-12-02 Bombardier, Inc.: Amendment 39-22073; Docket No. FAA-2022-0596; Project Identifier MCAI-2022-00150-T.

(a) Effective Date

This airworthiness directive (AD) becomes effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Bombardier, Inc., Model BD-100-1A10 airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 27, Flight Controls.

(e) Reason

This AD was prompted by a report of multiple in-service events where, following a STAB TRIM FAULT advisory message and auto-pilot disconnect, flightcrew commands for a nose-up trim resulted in nose-down trim movement of the horizontal stabilizer instead. The FAA is issuing this AD to address uncommanded horizontal stabilizer motion, which could result in increased crew workload and reduced safety margins; and if the flightcrew is unable to regain control of the horizontal stabilizer, would result in loss of control of the airplane and excessive high control forces.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Revision of the Existing Airplane Flight Manual (AFM) – Non-Normal

Procedures

Within 14 days after the effective date of this AD, revise the Non-Normal Procedures chapter of the existing Airplane Flight Manual to include the information in the applicable temporary revision identified in paragraphs (g)(1) through (3) of this AD.

(1) Bombardier Challenger 300 Temporary Revision TR-92, dated December 20, 2021, to the Bombardier Challenger 300 AFM (Imperial Version).

(2) Bombardier Challenger 300 Temporary Revision TR-92, dated December 20, 2021, to the Bombardier Challenger 300 AFM (Metric Version).

(3) Bombardier Challenger 350 Temporary Revision TR-23, dated December 20, 2021, to the Bombardier Challenger 350 AFM.

(h) Revision of the Existing AFM – Normal Procedures

Within 14 days after the effective date of this AD, revise the Normal Procedures chapter of the existing AFM to include the information for the “Before Starting Engines” checklist in Chapter 04 – Normal Procedures, of the applicable AFM identified in paragraphs (h)(1) through (3) of this AD.

(1) Bombardier Challenger 300 AFM (Imperial Version), CSP 100-1, Revision 67, dated March 29, 2022.

Note 1 to paragraph (h)(1): For obtaining the Before Starting Engines checklist for Bombardier Challenger 300 AFM (Imperial Version), CSP 100-1, use Document Identification number CH 300 AFM-I.

(2) Bombardier Challenger 300 AFM (Metric Version), CSP 100-1 (METRIC), Revision 67, dated March 29, 2022.

Note 2 to paragraph (h)(2): For obtaining the Before Starting Engines checklist for Bombardier Challenger 300 AFM (Metric Version), CSP 100-1 (METRIC), use Document Identification number CH 300 AFM-M.

(3) Bombardier Challenger 350 AFM, CH 350, Revision 33, dated March 29, 2022.

(i) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager,

Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer:* For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(j) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) TCCA AD CF-2022-03, dated February 1, 2022, for related information. This MCAI may be found in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0596.

(2) For more information about this AD, contact Elizabeth Dowling, Aerospace Engineer, Mechanical Systems and Administrative Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email 9-avs-nyaco-cos@faa.gov.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) “Before Starting Engines” checklist in Chapter 04 – Normal Procedures of Bombardier Challenger 300 Airplan Flight Manual (AFM) (Imperial Version), CSP 100-1, Revision 67, dated March 29, 2022.

(ii) “Before Starting Engines” checklist in Chapter 04 – Normal Procedures of Bombardier Challenger 300 AFM (Metric Version), CSP 100-1 (METRIC), Revision 67, dated March 29, 2022.

(iii) “Before Starting Engines” checklist in Chapter 04 – Normal Procedures of Bombardier Challenger 350 AFM CH 350, Revision 33, dated March 29, 2022.

(iv) Bombardier Challenger 300 Temporary Revision TR-92, dated December 20, 2021, to the Bombardier Challenger 300 AFM (Imperial Version), CSP 100-1.

(v) Bombardier Challenger 300 Temporary Revision TR-92, dated December 20, 2021, to the Bombardier Challenger 300 AFM (Metric Version), CSP 100-1 (METRIC).

(vi) Bombardier Challenger 350 Temporary Revision TR-23, dated December 20, 2021, to the Bombardier Challenger 350 AFM, CH 350.

(3) For service information identified in this AD, contact Bombardier Business Aircraft Customer Response Center, 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-2999; email ac.yul@aero.bombardier.com; Internet <https://www.bombardier.com>.

Note 3 to paragraph (k)(3): For obtaining the Before Starting Engines checklist for Bombardier Challenger 300 AFM (Imperial Version), CSP 100-1, use Document Identification number CH 300 AFM-I.

Note 4 to paragraph (k)(3): For obtaining the Before Starting Engines checklist for Bombardier Challenger 300 AFM (Metric Version), CSP 100-1 (METRIC), use Document Identification number CH 300 AFM-M.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fr.inspection@nara.gov, or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on May 26, 2022.

Gaetano A. Sciortino, Deputy Director for Strategic Initiatives,
Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2022-12242 Filed: 6/2/2022 4:15 pm; Publication Date: 6/6/2022]